

Report Card on the Quality of Americans' Diets

P.P. Basiotis
A. Carlson
S.A. Gerrior
W.Y. Juan
M. Lino

U.S. Department of Agriculture
Center for Nutrition Policy and Promotion

The diets of most Americans need to improve, as indicated by the 1999-2000 Healthy Eating Index (HEI). This finding is a concern, because dietary factors are associated with 4 of the 10 leading causes of death (coronary heart disease, certain types of cancer, stroke, and type 2 diabetes). Less than optimal diets, as well as inactivity among Americans, are key factors affecting the degree to which people are overweight.

To assess the status of Americans' diets and to monitor changes in these patterns, the U.S. Department of Agriculture's (USDA) Center for Nutrition Policy and Promotion (CNPP) developed the HEI, the only instrument computed on a regular basis by the Federal Government that gauges the overall quality of the population's diet. This report presents the HEI for 1999-2000—the most recent period for which nationally representative data are available to compute the HEI. Data used for analysis are from the Centers for Disease Control and Prevention's National Health and Nutrition Examination Survey, a nationally representative survey containing information on the diets of 8,070 people.

How the Healthy Eating Index Is Computed

The HEI is a summary measure of the quality of people's diets. The HEI, consisting of 10 components (each

representing different aspects of a healthful diet), provides an overall picture of the type and quantity of foods people eat, their compliance with specific dietary recommendations, and the variety in their diets.

- Components 1-5 measure the degree to which a person's diet conforms to serving recommendations of the five major food groups of the Food Guide Pyramid: grains (bread, cereal, rice, and pasta), vegetables, fruits, milk (milk, yogurt, and cheese), and meat (meat, poultry, fish, dry beans, eggs, and nuts).
- Component 6 measures total fat consumption as a percentage of total food energy (calorie) intake.
- Component 7 measures saturated fat consumption as a percentage of total food energy intake.
- Components 8 and 9 measure total cholesterol intake and total sodium intake, respectively.
- Component 10 measures the degree of variety in a person's diet.

Each component of the HEI has a maximum score of 10 and a minimum score of zero. Intermediate scores are computed proportionately. Whereas high component scores indicate intakes close to recommended ranges or amounts, low component scores indicate less compliance with recommended ranges or amounts.

The maximum combined score for the 10 components is 100. From this combined score, CNPP devised three ratings that imply how well Americans' diets meet dietary standards.

- A score above 80—a good diet.
- A score between 51 and 80—a diet that needs improvement.
- A score less than 51—a poor diet.

Most People Had a Diet That Was Poor or Needed Improvement

During 1999-2000, the diets of most people (74 percent) needed improvement (fig. 1). Only 10 percent of the population had a good diet; 16 percent had a poor diet. The highest mean HEI component scores for the U.S. population were for cholesterol and variety; both averaged 7.7 on a scale of 10 (fig. 2). Overall, 69 percent of the people had a maximum score of 10 for cholesterol—that is, they met the dietary recommendation; 55 percent of the people had a maximum score for variety. (The percentage of people with maximum scores is not shown in the figures.)

Fewer than 50 percent of the population, however, met the dietary recommendation for the other 8 HEI components. People had the two lowest mean scores for the fruits (3.8) and milk (5.9) components of the HEI: Only 17 percent of the people consumed the recommended number of servings of fruit per day, and only 30 percent met the dietary recommendation for milk. Average scores for the other HEI components were between 6 and 6.9. In general, most people could improve all aspects of their diets.

Figure 1. Healthy Eating Index rating, U.S. population, 1999-2000

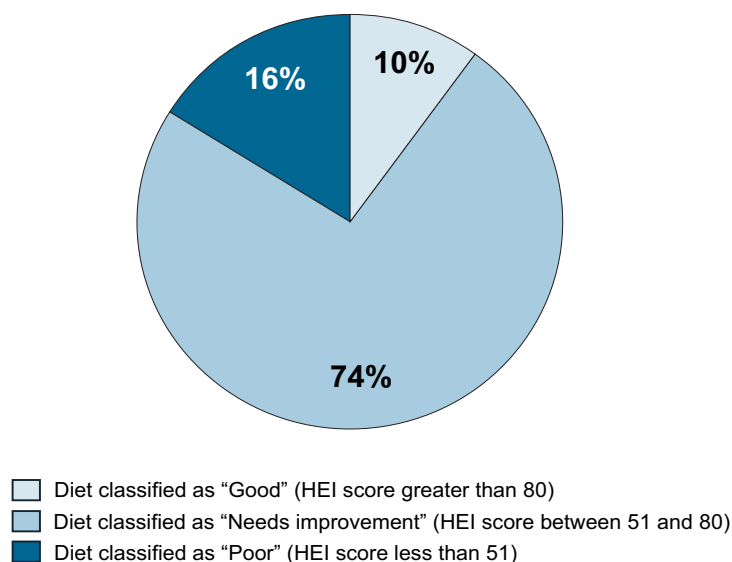
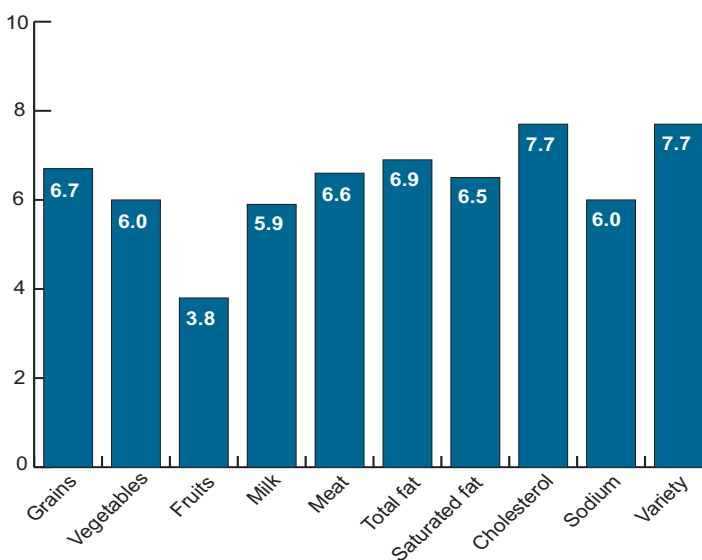


Figure 2. Healthy Eating Index: Component mean scores, 1999-2000



Healthy Eating Index Scores Varied by Americans' Characteristics

HEI scores varied significantly by Americans' demographic and socio-economic characteristics (table 1). For example, females had slightly higher scores than did males: 64.5 vs. 63.2, and children less than 11 years old had higher scores than did most other age groups. Compared with younger adults, older adults age 51 and over had higher HEI scores.

Differences in HEI scores were also apparent by racial/ethnic group, place of birth, education, and income. Mexican Americans had the highest HEI score—an average of 64.5 during 1999-2000, and non-Hispanic Whites had a higher mean overall HEI score than did non-Hispanic Blacks (64.2 vs. 61.1). Native-born Americans had a lower quality diet than did members of the U.S. population born in Mexico (63.5 vs. 66).

HEI scores generally increased with levels of education (among adults) and income. No subgroup of the population had an average HEI score greater than 80, that is, a good diet.

Trends in the Healthy Eating Index

How has the quality of the American diet changed over time? The diets of Americans have slightly improved since 1989 (the first year the Index was calculated), but they have not changed since 1996. People's diets were in the "needs improvement" range in all 3 years. In 1989, the average HEI score was 61.5; in 1996 and 1999-2000, it was 63.8, a 4-percent increase. Over the three periods, saturated fat and variety scores increased steadily while sodium scores decreased steadily.

Table 1. Healthy Eating Index scores, by selected characteristics, 1999-2000

Characteristic	Overall score
Gender	
Male	63.2
Female	64.5
Age (years)/gender	
Children, 2-3	75.7
Children, 4-6	66.9
Children, 7-10	66.0
Females, 11-14	61.4
Females, 15-18	61.7
Females, 19-50	63.2
Females, 51+	66.6
Males, 11-14	60.8
Males, 15-18	59.9
Males, 19-50	61.3
Males, 51+	65.2
Race/ethnicity	
Non-Hispanic White	64.2
Non-Hispanic Black	61.1
Mexican American	64.5
Other race ¹	63.4
Other Hispanic	64.2
Place of birth	
United States	63.5
Mexico	66.0
Other	65.7
Education ²	
No high school diploma	61.1
High school diploma	63.0
More than high school diploma	65.3
Income as percent of poverty	
<100%	61.7
100-184%	62.6
>184%	65.0

¹Consists of Asian, Pacific Islander, American Indian, and Alaskan Native.

²Consists of people age 25 and over only.

These findings provide a better understanding of the types of dietary changes needed to improve people's eating patterns. The HEI is an important tool that can be used to provide guidance to target and design nutrition education and public health interventions.

Note: For more details on the Healthy Eating Index and how it is computed, see Basiotis, P.P., Carlson, A., Gerrior, S.A., Juan, W.Y., & Lino, M. (Authors in alphabetical order.) (2002). *The Healthy Eating Index: 1999-2000*. U.S. Department of Agriculture, Center for Nutrition Policy and Promotion. CNPP-12. Also available at www.cnpp.usda.gov.